

Appl. No. 09/641,104
Andt. Dated August 20, 2003
Reply to Final Office Action of February 21, 2003

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-8 (cancelled)

Claim 9 (withdrawn): Peptides covering parts of the LEF-1/TCF-4 transcription factors and their variants and mutants.

Claim 10 (withdrawn): Peptide according to claim 9 consisting of the 10-40 amino acid long sequences from the N-terminal area of LEF-1 or TCF-4.

Claim 11 (withdrawn): Peptide according to claims 9 –10 consisting of the N-terminal amino acids 11-34 of LEF-1 of the following sequence

GDPELCATDEMIPFKDEGDPQKEK

Claim 12 (withdrawn): Peptide according to claims 9 –10 consisting of the N-terminal amino acids 14-27 of LEF-1 of the following sequence

ELCATDEMIPFKDE

Claim 13 (withdrawn): Peptide according to claims 9 –10 consisting of the N-terminal amino acids 7-29 of TCF-4 of the following sequence

GGDDLGANDELISFKDEGEQEEK

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Claim 14 (withdrawn): Peptide according to claims 9 –10 consisting of the N-terminal amino acids 10-23 of TCF-4 of the following sequence

DLGANDELISFKDE

Claim 15 (withdrawn): Peptide according to claims 9-14 wherein it contains acid amino acids at a distance of 5 amino acids flanked by hydrophobic amino acids and containing a basic amino acid.

Claim 16 (withdrawn): Use of peptides according to claims 9-15 for treating tumors wherein peptides are coupled with a second peptide and are thereupon applied in an appropriate form.

Claim 17 (withdrawn): Use according to claim 16 wherein antennapedia peptide RQIEIWFQNRRMEWEE is used as second peptide.

Claim 18 (withdrawn): Use according to claim 16 wherein peptides and binding regions are modified to increase the stability (peptidomimetics).

Claim 19 (withdrawn): Use of peptides and binding regions according to claim 16 wherein their carbon skeleton is substituted by carbon skeletons with the same arrangement of functional groups (non-peptidomimetics).

Claims 20-28 (cancelled)

Claim 29 (withdrawn): Use of substances obtained by means of peptidomimetics or non-peptidomimetics from the claims 20-28.

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Claim 30 (withdrawn): Use of peptides and similar molecules according to claims 20-28 to build up agents for treating tumors, tissue and organic damage, e.g. psoriasis.

Claim 31 (withdrawn): Use of peptides and similar molecules according to claims 20-28 for screening substances which highly specifically inhibit or intensify one of the interactions of β -catenin with LEF/TCF, APC, conductin or E-cadherin.

Claim 32 (withdrawn): Use of peptides and similar molecules according to claims 20-28 inhibiting the interaction between β -catenin and LEF/TCF, APC, conductin or E-cadherin for treating tumors.

Claim 33 (withdrawn): Use of peptides and similar molecules according to claims 20-28 which promote the interaction between β -catenin and LEF/TCF, APC, conductin or E-cadherin for the regeneration of tissue and organs (e.g. for promoting growth of hair).

Claim 34 (withdrawn): ELISA for screening of substance libraries for components which affect the interaction between α -catenin and LEF-1/TCF, APC, conductin and E-cadherin.

Claim 35 (withdrawn): ELISA according to claim 35 containing peptides and mutants and similar molecules according to claims 9-15, 20-28 to identify substances for treating tumors, regeneration of tissue and organs.

Claim 36 (withdrawn): A peptide that affects the interaction of β -catenin and a transcription factor or tumor suppressor protein, wherein said peptide is selected from the group consisting of the peptides having the sequences shown in SEQ. ID. NO.: 1, SEQ. ID. NO.: 2, SEQ. ID. NO.: 3 and SEQ. ID. NO.: 4.

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Claim 37 (withdrawn): The peptide of claim 29, wherein the effect is to inhibit the interaction of β -catenin and said transcription factor or tumor suppressor protein.

Claim 38 (withdrawn): The peptide of claim 29, wherein the effect is to inhibit the interaction of β -catenin and a transcription factor or tumor suppressor protein selected from the group consisting of LEF-1, TCF-4, APC 15, conductin, E-cadherin and AP 20 amino acid repeats.

Claim 39 (currently amended) A peptide ~~derived from~~ obtained from the armadillo domain of β -catenin that affects the interaction of β -catenin and a transcription factor or tumor suppressor protein, wherein said peptide is selected from the group consisting of the peptides having the sequences shown in SEQ. ID. NO.: 6, SEQ. ID. NO.: 7, SEQ. ID. NO.: 8, SEQ. ID. NO.: 9, SEQ. ID. NO.: 10, SEQ. ID. NO.: 11, and SEQ. ID. NO.: 12 SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, and SEQ ID NO: 12, or mutants thereof of the protein of β -catenin, wherein said mutants is selected from the group consisting of a mutation in His 470, a mutation in Arg 469, a mutation in Trp 383, a mutation in Arg 386, or said mutants is selected from the group consisting of a mutation in Arg 386, a mutation in Phe 253, a mutation in Arg 274, a mutation in Trp 338, and a combination of any said mutations in Arg 386, Phe 253, Arg 274, and Trp 338.

Claim 40 (currently amended) The peptide of claim [[32]]39, wherein the effect is to inhibit the interaction of β -catenin and said transcription factor or tumor suppressor protein.

Claim 41 (currently amended) The peptide of claim [[32]]39, wherein the effect is to inhibit the interaction of β -catenin and a transcription factor or tumor suppressor protein selected from the

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group consisting of LEF-1, TCF-4, APC 15, conductin, β -catenin and [[AP]] 20 amino acid repeats of APC.

Claims 42-43 (cancelled)